Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (previously presented) A method for measuring the lifetime of an excited state in a specimen, comprising the following acts:

a) generating an exciting light pulse and an emitting light pulse;

b) illuminating the specimen with the exciting light pulse;

c) illuminating the specimen with the emitting light pulse at a predefined time offset from illuminating the specimen with the exciting light pulse;

d) detecting the power level of the luminescent light emerging from the specimen;

e) repeating acts a) - d) with different time offsets;

f) reducing the energy of the emitting light pulse in proportion to the energy of the exciting light pulse; and

g) determining the lifetime of the excited state of the specimen as a function of the power level of the luminescent light emerging from the specimen and the time offset.

2. (original) The method as defined in Claim 1, wherein the exciting light pulse is generated with a pulsed laser, and the emitting light pulse with a further pulsed laser and both pulsed lasers are synchronized with one another.

3. (original) The method as defined in Claim 1, wherein the exciting light pulse and the emitting light pulse are generated by a single pulsed laser.

4. (cancelled)

5. (previously presented) The method as defined in Claim 1, wherein an optically parametric oscillator for reducing the energy is provided in the beam path of the emitting light pulse.

6. (original) The method as defined in Claim 1, wherein the luminescent light is fluorescent light.

7. (original) The method as defined in Claim 1, wherein the specimen is a microscopic sample equipped with fluorescent dyes.

8. (original) The method as defined in Claim 1, wherein light of the wavelength of the emitting light pulse is not detected.

9-20 (cancelled).